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REMARKS

The present invention claims a method of tagging each digital message with a priority, and using Overlay software to select the best route. Route in this context is defined in the specification as the network itself or combinations of networks, not the route within a specific network. This is software that is actually added to the message itself. The present invention does not define a scheme for selecting the best route within a network (the basis for Iwata) but rather uses the tag to determine which network best meets the expectation of the tag. The premise for the presently claimed invention is that a given network can and does meet its advertised characteristics. Based on these advertised characteristics, the message is routed to the network that best meets the tagged expectations (user chosen routing priority criteria). Iwata's patent adds intelligence to a given network itself (see Fig. 1 in the Iwata patent). The present invention assumes neither a smart or dumb network, it only assumes a network will operate as advertised.

Iwata specifically discloses and is focused entirely upon the identification and verification/validation (initially and periodically) of the quality of one or more available routes. The Examiner in the office action indicates that Iwata prioritizes the message and adds a prioritization tag to the digital message. This contention is in error. Iwata isn't about prioritizing but about defining a minimum acceptable set of criteria and validating and verifying that the route meets these criteria. It does so by sending a test message and periodically checking to ensure the desired QOS. This is the only criteria tested and the only basis for choosing a route. As previously discussed, the present invention is based on the assumption that any available routes are "as advertised". In other words, the invention does not envision verification or validation of the "advertised" attributes of a given route (Iwata). The present invention as claimed, is focused on the idea that routes offer unique attributes and that these attributes will allow a

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message that is tagged with a certain priority to decide which route best meets the desired attributes. Once a given route is chosen based upon the prioritized criteria, the message will be sent even if the route doesn't meet its published criteria. Iwata would be a logical addition for a user who prioritized a message based on the present invention and then verified QOS based on Iwata. This explanation shows the significant differences between the present invention and Iwata.

Claims 1, 4-14 and 16-18 were rejected under 34 USC § 102(b) as being anticipated by Iwata.

From the perspective of the routing apparatus, Iwata is proposing a change from the state prior to his patent where nodes in a network make a search of possible paths in a topology database and selects an optimum path that satisfies one of the QOS specified by the connection request. Iwata envisions a scheme where the initial point or node that a user terminal connects to a network will have a sophisticated switch, protocol converter, and QOS-based routing converter. This equipment will allow the node (Iwata identifies this node as "NODE A" in his figures) to apply QOS expectations to available routes until an optimum route is identified for a given message. Further it verifies the actual function of a given route. The present invention uses Overlay software to determine a route/network. This is done based on the software that is tagged to a message. Iwata is using a node itself to choose the route so the apparatus is completely different. The present claims use look-up tables imbedded in the Overlay software. These are very simple tables used to store the advertised characteristics of the various networks. Iwata's tables are used to store information on the inter-nodal QOS within the network itself, i.e., from one node to another node.

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Iwata defines QOS as "available cell rate (ACR), cell transfer delay (CTD), cell delay variation (CDV), and cell loss ratio (CLR)". The present invention claims four factors that the Overlay software uses to choose a route. They are the most economic route, the fastest route, the most secure route, and the route that provides the greatest integrity. In the Iwata patent all "cost" associated with the routes are in actuality, performance measures provided by the service provider. "The administrative weight is a parameter value that is assigned by network provider to each link of the network. The administrative weight is used as a link cost to calculate the total cost of the path". The present claims discuss the actual cost that a service provider charges a user.

The fastest route implies that route or network which provides the quickest delivery time for a message from the point of origin to the point of delivery. The Iwata patent is focused on measuring the CTD or CDV between nodes within a network. The present invention measures/assesses nothing. It takes the published/advertised time to deliver a message and the Overlay software decides which route/network best matches that need.

Another criteria claimed is security. Iwata does not mention or imply security in the patent.

The final prioritization characteristic claimed is integrity. Integrity is defined in the specification as characteristics, which define reliability. In simple terms, can a sender have a guarantee that a message will be delivered? Iwata discloses ACR and CLR, which may be the basis for the Examiner's rejections. These are again, characteristics of inter-node performance as discussed below.

The Examiner in his office actions confuses the route with a network. In the present claims a Digital Service Providers (DSP) and various media that a message could be sent, is claimed. The term route means the aggregate

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network hence the use of the term media when talking about the routes that various DSP's offer. This is where a significant amount of the confusion on the part of the examiner lies. Users in the future, as described in the specification, will have numerous choices across various media, with each of these networks providing a route that has certain characteristics. The present invention does not claim picking the actual routing of the message within the network itself, as Iwata. Iwata is only focused on determining the actual node to node route a message will take within a network and verifying that the chosen route meets expectations. The selected route in Iwata is not chosen until after the test transmission is successful. In the present application, there is no test transmission. The message is sent only one time and is based on the user chosen criteria. As previously discussed, the present invention chooses a DSP from the as advertised routing data based on user chosen routing criteria. Iwata tests the route using specified parameters and then chooses the route based on the test results. To more clearly set out these novel features of the present invention, claims 1 and 14 (independent claims) have been amended to include the defined routing criteria of dependent claims 6 and 17. As discussed above, none of the criteria are mentioned or implied in Iwata. The amendments do not require a new search to be completed. Thus with these amendments, the claims are allowable.

Claims 2, 3, and 15 were rejected under 45 USC § 103 (a) as being unpatentable over Iwata in view of Harper. Iwata has been extensively discussed above. Harper discloses only a "message network monitoring system". The present invention does not discuss or teach monitoring the message. The present invention is focused solely on establishing criteria for a message so that the criteria is used to determine which "advertised" route best meets the criteria. The message will then automatically be sent over the selected route, regardless of the actual attributes of the route.

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In a similar fashion, Harper is focused on a method of accounting for each message sent. The present claims do not claim accounting, but about using cost of a given route, among other criteria, as a method of choosing "which" route to use. Again, similar to above, the Harper patent is attempting to verify use of a route so that a bill can ultimately be generated. The present invention isn't about billing, but assumes that each route will have a cost and that these costs can frequently be different. The fact that routes have different "published" or "advertised" costs are accepted as a given in the present claims. If a message is tagged with a unique cost expectation, then the message will or will not be sent through a given route depending on whether or not the "advertised" cost meets the tagged criteria. The present invention, in fact, is much more complex than Harper since it assumes a message can be tagged with multiple expectations and will continually look at "advertised" expectations for given routes to determine which route is most likely to meet the desired criteria.

Neither patent discusses an overlay software capability that will determine what the unique needs of a given message are and tag the message with a unique software tag. This is done prior to a message being routed and can make each message unique. Neither Iwata nor Harper discuss this feature. The claims under this rejection are dependent claims, and due to the allowability of the independent claims, these claims are also allowable.

Having responded to each and every objection and rejection raised by the Examiner, it is believed that the patent application is now in condition for allowance, and such allowance is respectfully requested. If the Examiner has any questions or suggestions for expediting an allowance in this matter, the Examiner is invited to call the undersigned collect.

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The Commissioner is authorized to charge any fees or credit any overpayment under 37 CFR §§ 1.16 and 1.17 which may be required during the entire pendency of the application to Deposit Account No. 01-2335.

Respectfully submitted,

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